

CLAIMS

- 1/ Composite textile material for protecting the human body against heat, essential comprising an outer zone providing a leakproofing function, an intermediate zone in which a flow of air circulates, and an inner zone allowing mass and heat to be transferred into the intermediate zone, the material being characterized in that it is constituted by a three-dimensional cloth (1, 3, 4) having one fabric (1) of hydrophobic cloth constituting the outer zone, and having its other fabric (4) in the form of a woven cloth or a knit of hydrophilic fibers and constituting the inner zone, the two fabrics (1, 4) being interconnected by link threads (5) enabling the intermediate zone to exist.
- 2/ Composite textile material for protecting the human body against heat, essential comprising an outer zone providing a leakproofing function, an intermediate zone in which a flow of air circulates, and an inner zone allowing mass and heat to be transferred into the intermediate zone, the material being characterized in that it is constituted by a three-dimensional cloth (1, 3, 4) having one fabric (1) of hydrophobic cloth constituting the outer zone, and its other fabric (7) is identical or different, and by a woven cloth or knit (6) of hydrophilic fibers spaced apart from the three-dimensional cloth, the two fabrics (1, 7) being interconnected by link threads (5) enabling the intermediate zone to exist.
- 3/ A composite textile material according to claim 2, characterized in that the surface of the three-dimensional cloth (7) facing the woven cloth or knit (6) has openings.

4/ A textile material according to claim 1, characterized in that the fabric (1) comprises a first layer of any kind together with a contiguous hydrophobic cloth (1a).

5 5/ A textile material according to claim 2, characterized in that the three-dimensional cloth (1, 3, 7) is lined on one face with a hydrophobic cloth (1a) and on its other face with a woven cloth or knit (6) of hydrophilic fibers.

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6/ A textile material according to claim 4 or 5, characterized in that the hydrophobic cloth (1, 1a) carries a coating layer (2).

15 7/ A protection element for protecting the human body, made from a composite textile material according to any one of claims 1 to 6, the element being characterized in that it is fitted with means (16) for admitting a flow of air coming from a source external to the protection
20 element (forced ventilation) or generated by the movements of the wearer (natural ventilation), with a diffusion zone (17) distributing the flow of air in the internal volume of the three-dimensional cloth, with a collector zone (20) for collecting the flow of air that
25 has circulated in the three-dimensional cloth, and with means (21) for exhausting the flow of air.

8/ A protection element according to claim 7, characterized in that preferential paths are created in
30 the internal volume of the three-dimensional cloth between the diffusion zone and the collecting zone by continuous or discontinuous stitching (18, 19).

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